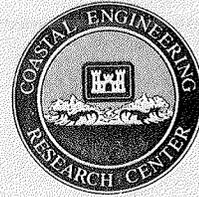


Coastal Engineering



Technical Note

AVAILABILITY OF DIGITAL U. S. COASTAL HYDROGRAPHY

PURPOSE: This note announces the availability of gridded and ungridded digital hydrographic survey data for the coastal areas of the United States from the U. S. Department of Commerce, National Oceanic and Atmospheric Administration.

SOURCE OF DATA: Hydrographic survey data have been collected for many years by the National Ocean Service (NOS), formerly the U. S. Coast and Geodetic Survey, to prepare and maintain accurate nautical charts of the coastal and offshore waters of the United States. These data have in recent years been assimilated into a digital data base in an effort to make the production of nautical charts more efficient. This data base has been made available to the general public through the National Geophysical and Solar-Terrestrial Data Center (NGSDC), Environmental Data and Information Service (EDIS), at Boulder, Colorado. The EDIS/NGSDC has also recently made available to the public a similar, but less comprehensive, data base of worldwide digital hydrography.

DATA FORMAT: The data are available on magnetic tape in two basic formats: gridded and ungridded. Both data formats consist of hydrographic soundings which have been corrected for tide or water level, vessel draft, and sound velocity in water prior to assimilation into the data base. All soundings represent the depth at appropriate tidal datums or at special water levels, as indicated below:

| | |
|------------------------|---------------------------------|
| Atlantic and Carribean | Mean Low Water (MLW) |
| Gulf of Mexico | Gulf Coast Mean Low Water Datum |
| Pacific | Mean Lower Low Water (MLLW) |
| Arctic | Mean Lower Low Water (MLLW) |
| Great Lakes | Low Water Datum |
| Worldwide | Mean Sea Level (MSL) |

Ungridded soundings consist of an edited version of individual soundings

as they were collected by survey vessels, without interpolation, into a specified grid. Figure 1 is an illustration of a typical distribution of soundings in ungridded format. Soundings are normally associated with the date and survey on which they were collected, their position in latitude and longitude, and the units in which they are presented (feet, meters, or fathoms). Bottom characteristics or other features of interest are also noted in some instances.

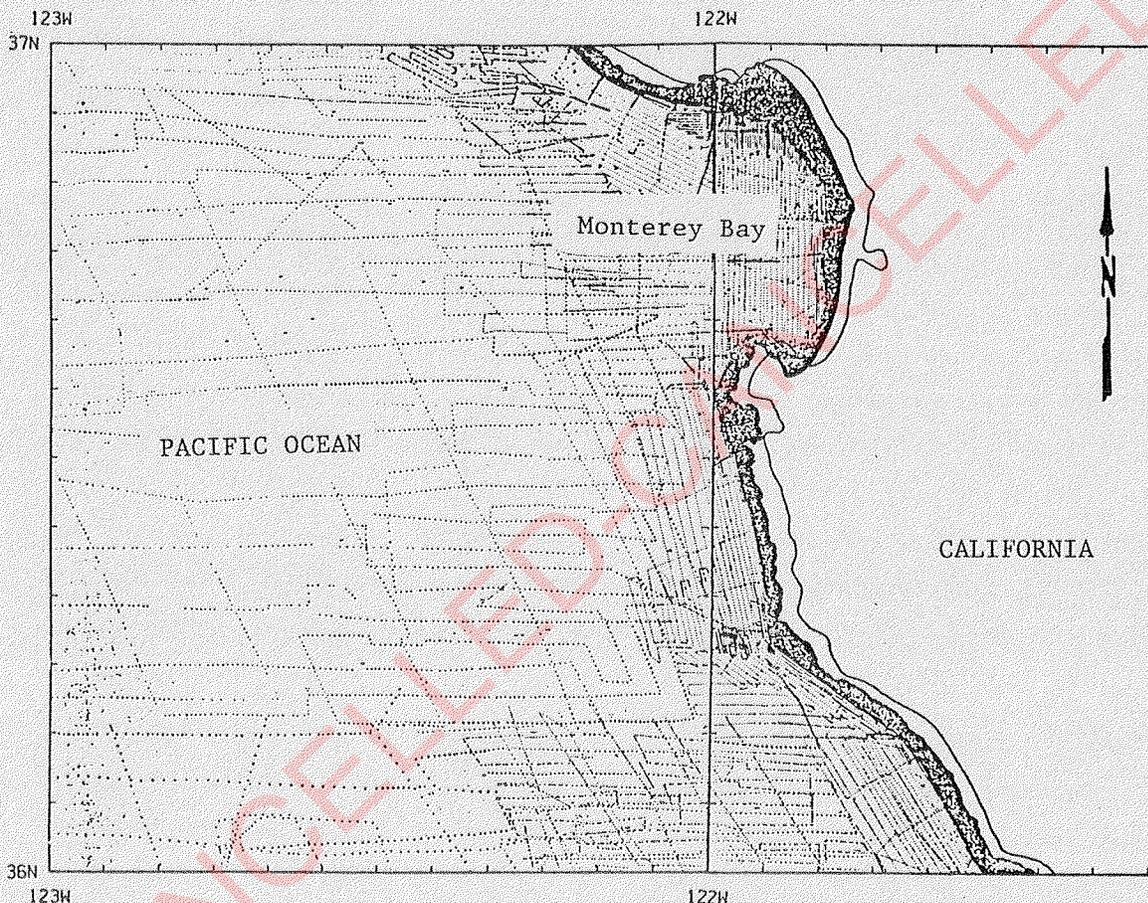


Figure 1. Available Digital Hydrography, Monterey and the Central California Coast

NGSDC, in cooperation with the U. S. Geological Survey, has also compiled a data base of hydrographic information for most U. S. coastal areas, with depths provided for orthogonal grid cells at 15-second intervals. Data are presented in a similar format for grid cells at 5-minute intervals for many ocean areas worldwide. Gridded data for the North Pacific Ocean have also been made available through the Naval Ocean Research and Development

Activity for 30-by-30-nautical mile grid cells. The data for each grid cell typically include the position of the cell in latitude and longitude; the average, minimum, and maximum measured depths within the cell; the standard deviation of these depths; and the number of measurements. Magnetic tapes for both gridded and ungridded data are usually 9-track ASCII coding with 1600 BPI and are blocked at 7680 characters per block.

ADDITIONAL INFORMATION: Detailed information on the availability of digital hydrographic data for specific areas and prices for procuring data tapes can be obtained by contacting NOAA/EDIS/NGSDC at the address or phone numbers given below. Information on data tapes already procured by CERC (copies available to Corps District at no charge) is available through Orson P. Smith, Coastal Design Branch, at (601) 634-2013 or FTS: 542-2013.

National Oceanic and Atmospheric Administration
EDIS/NGSDC, D64
325 Broadway
Boulder, Colorado 80303
Contact: Steven Conrad at (303) 497-6376 or FTS: 320-6376